UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,731	02/07/2002	Joseph Carrabis	13200/60134	2985

26812 7590 03/28/2006

HAYES, SOLOWAY P.C.
175 CANAL STREET
MANCHESTER, NH 03101

EXAMINER	
CHANNAVAJJALA, SRIRAMA T	
ART UNIT	**PAPER NUMBER**
2166	

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/071,731	CARRABIS, JOSEPH	
	Examiner	Art Unit	
	Srirama Channavajjala	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

THIS IS FINAL OFFICE ACTION TO THE PENDING CLAIMS 1-18

1. Examiner acknowledges applicant's "response" filed on 19 Jan 2006.

2. In view of the appeal Brief filed on 9/1/2005, ***PROSECUTION IS HEREBY REOPENED***. A new non-final rejection to the pending claims 1-18 is set forth below mailed on 10/18/2005.

3. Examiner acknowledges applicant's Appeal Brief filed on 9/1/2005.

Drawings

4. The drawings filed on **2/7/2002** is acceptable for examination purpose.

Priority

5. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged based on the provisional application Sl.No. ***60/329,770*** filed on ***10/16/2001***

6. Examiner notes that applicant filed international application no. PCT/US02/32980 on 10/16/2002 is now published WO 03/034284A1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-8,10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breese et al. [hereafter Breese], US Patent No. 5,987,415 filed on July 30,1998, published on Nov 16, 1999 in view of Mizokawa, US Patent No.6, 230,111 filed on Aug 6, 1998, published on May 8, 2001

8. As to Claims 1,8 12,18 Breese teaches a system which including 'method of obtaining information regarding an environment for an individual having preferred modalities and engaged in activity using a programmable device' [see Abstract, col 4, line 57-62, col 6, line 36-44,col 8, line 8-12, col 10, line 23-27, fig 3], environment for an individual corresponds to Breese 's computer user interface that including observing user behavior, particularly user behavior caused from emotion and personality state as detailed in col 4, line 59-60, further it is noted that Breese specifically teaches a model that influence of emotion and personality based on Bayesian network as detailed in fig 3, programmable device corresponds to program modules being executed by a personal computer because program modules include processes, programs and like as detailed in col 6, line 40-42; 'sensing at least one psychomotor behavioral element of the activity engaged by the individual' [col 8, line 23-28, line 35-41, col 10, line 34-42],

Breese specifically teaches Bayesian net integrate various aspects of emotion and personality in a single model for example cognitive response as well as physical response based on the metal state, further, it is noted that personality nodes capture or senses individual emotional and or personality state as detailed in col 10, line 34-42; 'psychomotor behavior element of the activity engaged by the individual' [col 12, line 49-59, fig 6], psychomotor behavior elements corresponds to loud, angry voice tones, calm, quite voice related to emotional state and personality of the user as detailed in col 12, line 50-52. It is however, noted that Breese does not specifically teach "determining the preferred modalities of the individual'. On the other hand, Mizokawa teaches a system which including 'determining the preferred modalities of the individual' [col 6, line 55-60], preferred modalities of the individual corresponds to Mizokawa's user's emotions as detailed in col 6, line 58-60.

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Mizokawa into modeling user's emotion and personality in a computer user interface of Breese et al. because both Breese and Mizokawa are directed to user behavior and emotion model, more specifically Breese is directed to computer based capturing emotion and personality states that including multistage representation of emotional and personality variables [see Abstract, col 5, line 22-28], while Mizokawa is directed to controlling object using pseudo-emotions and pseudo-personality generated in the object, more specifically

recognizing, updating user commands related to pseudo-personality, pseudo-emotions and pattern of behavior [see Abstract, fig 2-3].

One of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Mizokawa into modeling user's emotion and personality in a computer user interface of Breese et al. because that would have allowed users of Breese to use user evaluation, emotion recognition units to observe various pattern of behavior or modality, further allowing to determine pseudo-emotions, predetermined relationship between patterns of autonomous behavior, [see Mizokawa: col 2, line 15-34], thus improving evaluation of user's intellectual work or desire [col 1, line 51-60].

9. As to Claim 2, Mizokawa teaches a system which including 'modifying at least one modifiable environmental unit to at least partially conform to the preferred modalities' [col 6, line 46-54, fig 4].

10. As to Claim 3, Breese teaches a system which including 'environment unit is modified in real-time' [col 17, line 35-43].

11. As to Claim 4, Mizokawa teaches a system which including 'storing the sensed psychomotor behavioral element in a user history' [col 7, line 32-40, line 51-55].

12. As to Claim 5,13,15, Breese teaches algebraic transforms' [col 2, line 38-49], Breese specifically teaches Bayesian network model associate with various algebraic transforms. On the other hand, Mizokawa teaches a system which including 'sensed psychomotor behavioral element is stored' [col 7, line 53-59, col 8, line 14-29], psychomotor behavioral element corresponds to Mizokawa's user's emotions that including obedience, aggressiveness, curiosity, cheerful and like as detailed in col 8, line 14-29.

13. As to Claim 6, the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Mizokawa teaches determining preferred modalities includes determining a preferred combination of modalities and an ordering of modalities by preference thereby further defining a focus of the individual's attention' [col 7, line 11-17, line 21-24], Mizokawa specifically teaches sound/voice recognition, analyzing information on the user's gestures]

14. As to claim 7, Mizokawa disclosed 'modifying the environmental unit to provide content in the environment in the preferred combination of modalities and the order of modalities by preference whereby the combination and the order are placed in at least one respective co-ordinate group of representational geometry to which attention of the individual is drawn, as indicated by the psychomotor behavioral element' [col 6, line 46-62].

15. As to claim 8, Breese disclosed 'defining a psychodynamic and a cognitive behavioral model using preferred combination modalities and the order of modalities' [col 5, line 5-10, line 23-28]; 'modifying at least one environmental unit as a function of the psychodynamic behavioral model and the cognitive behavioral model' [col 8, line 35-43].

16. As to Claim 10, the limitations of this claim have been noted in the rejection of claim 1 above. And in addition, Breese teaches 'multi-dimensional and has a plurality of modifiable environmental units' [col 10, line 59-67].

17. As to claim 11, Mizokawa disclosed 'preprogramming the device to monitor the individual for at least one specific types of psychomotor behavioral elements' [col 4, line 25-46]; 'communicating an occurrence of the specific type of psychomotor behavioral element' [col 4, line 39-46].

18. As to claim 14, Mizokawa disclosed 'memory device to store sensed psychomotor behavioral activity of the individual' [col 7, line 60-64].

19. As to claim 16, Mizokawa disclosed 'modalities are calculated while sensing psychomotor behavioral activity and concurrently used for modifications to the environmental units' [col 10, line 15-24].

20. As to claim 17, Mizokawa disclosed 'sensor includes at least one input device for a computer and the modifiable environmental unit includes at least one output device' [fig 1, col 4, line 51-59].

21. **Claims 9 is *rejected under 35 U.S.C. 103(a) as being unpatentable over Breese et al. [hereafter Breese], US Patent No. 5,987,415 filed on Ju 30,1998, published on Nov 16, 1999 in view of Mizokawa, US Patent No.6, 230,111 filed on Aug 6, 1998, published on May 8, 2001***

22. It is, noted both Breese, Mizokawa do not teach 'modalities calculation by an equation', although Breese teaches modeling a user's emotion and personality specifically using Bayesian network inference algorithm [see abstract, col12, line 29-35], while Mizokawa teaches control system for controlling object using pseudo-emotions and personality specifically calculating using rules or functional equations for pseudo emotions levels and personalities [col 10, line 15-18]. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to not only sense emotions, but also establish relationship between emotions, environmental information to evaluate the behavioral output as suggested by Mizokawa [col 9, line 16-21].

Response to Arguments

23. Applicant's arguments in the response filed on 1/19/2006, with respect to the rejection of claims 1-18 have been considered but not persuasive, for examiner's response, see discussion below:

a) At page 8- 9, claim 1, applicant argues that "applicant respectfully requests that the examiner identify the specific teachings within the prior art that teach or suggest all of the claim limitations, specifically "sensing at least one psychomotor behavioral element".

As to the argument [a] above, as best understood by the examiner, Breese et al teaches modeling a user's emotion and personality in a computer user interface, more specifically Breese's network having user interface that allows user emotional and personality states from the behavior observed both agent network and observer [col 4, line 62-67], agent network typically "stochastic model preferably Bayesian network [col 5, line 5-7]. It is also noted that, Breese specifically teaches Bayesian net integrate various aspects of emotion and personality in a single model for example cognitive response as well as physical response based on the mental state, further, it is noted that personality nodes capture or senses individual emotional and or personality state as detailed in col 10, line 34-42, therefore, Breese teaches sensing at least one psychomotor behavioral element as detail at col 8, line 23-28, line 35-41, col 10, line 34-42.

b) At page 9, claim 1, applicant argues that Breese in view of Mizokawa fails to at least teach, disclose, or suggest determining the "preferred modalities of the individual".

c) At page 9, claim 1, applicant argues that applicant's claim of determining the preferred modalities of the individual is distinctly different from the teachings of Mizokawa.....

d) At page 11, claim 1, applicant argues that Mizokawa does not teach identifying preferred modalities of an individual.

As to the arguments [b-d], Mizokawa is directed to controlling object using pseudo-emotions and pseudo-personality generated in the object, more specifically, pseudo emotions, and relationship between patterns of autonomous behavior and user related, and user-unrelated statuses [col 2, line 16-24], further fig 1 specifically suggests each element of predetermined pseudo-personality elements, pseudo-emotions and the and relationship. It is noted that Breese does not specifically teach "determining the preferred modalities of the individual", although Breese suggests Bayesian net integrate various aspects of emotion and personality in a single model, and capturing or sensing individual emotional state [Breese: col 10, line 34-42]. On the other hand, Mizokawa teaches recognizing user's emotions, more specifically patterns of emotional expressions for example joyful, sad, surprise, angry, disgusted and like are captured and recognized [see Mizokawa: col 6, line 55-60], further it is noted that Mizokawa specifically suggests relationship or mapping between emotions and characteristics of sounds/voices and facial expressions [col 6, line 60-67] corresponds to preferred modalities of the individual.

e) At page 10, claim 1, applicant argues that "Paragraphs 66-75 further detail modalities as claimed. As described in paragraphs 66 and 67, "when grid movement is determined the modality summations can be selected to determine if the viewer's attention is focused on visual, auditory, kinesthetic or other related cues. Based on the results of this equation, the web server can prepare in real time what the next presentation and interface should be in order to capture more of the viewer's attention by presenting the web content in modalities, which the viewer has nonconsciously selected"

In response to the above-mention argument [e], applicant's interpretation of the prior art is noted. However, the claim limitation reads, "determining the preferred modalities of the individual". In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "when grid movement is determined the modality summations can be selected to determine if the view's attention is focused on visual, auditory, ...) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993) . This is not a suggestion of any sort.

As explained in the Mizokawa's reference, Mizokawa recognizing, evaluating users or view's emotions, particularly several patterns of emotions that including "joyful, sad, surprise, angry, disgusted, and fearful [col 6, line 58-60], further user's emotions

may also be recognized based on sound/voice and facial expressions [col 6, line 46-52], it is noted that Mizokawa specifically suggests relationship or mapping between emotions and characteristics of sounds/voices and facial expressions [col 6, line 60-67] corresponds to preferred modalities of the individual.

f) At page 11, claims 2-11, Examiner applies above discussed claim 1 arguments to the dependent claims 2-11.

g) At page 12, claim 5, applicant argues "nothing in the cited references suggests storing sensed information using linear algebraic transforms.

As to the above argument [g], Examiner disagree with the applicant because Breese specifically teaches various algebraic transforms in computer science area, applications that including decision-support system, particularly in emotional signals, behavior as detailed in col 2, line 38-49.

h) At page 12, claim 6, applicant argues that Mizokawa does not teach determining "preferred combination of emotions" or an "ordering of emotions by preference".

As to the above argument [h], as best understood by the examiner, Mizokawa specifically teaches user's emotions, and establishing relationship between emotions and characteristics of sounds/voices and facial expressions, further categorizing emotion expressions of the user into different patterns, further degree of requirement

are recognized for example voice or speed of the user's speech and like or loudness corresponds to preference as detailed in col 7, line 11-17, line 21-24].

i) At page 13, claim 7, applicant argues that Mizokawa teaches a plurality of methods for sensing emotions, but does not speak in any manner to determining a "preference".

As to the above argument [I], as explained above, Mizokawa specifically teaches user's emotions, and establishing relationship between emotions and characteristics of sounds/voices and facial expressions [col 6, line 46-62], further categorizing emotion expressions of the user into different patterns, further degree of requirement are recognized for example voice or speed of the user's speech and like or loudness corresponds to preference as detailed in col 7, line 11-17, line 21-24].

j) At page 13, claim 8, applicant argues that Breese cannot teach this claim limitation if it does not teach determining preferred modalities.

As to the above argument [j], as best understood by the examiner, Breese suggests developing model that represents behavioral aspects, more specifically behavior variables that including emotions/personalities behavioral elements for example speech attributes, facial expressions and like as detailed in col 5, line 5-10, line 23-28., also it is noted that Psychodynamic is simply based on human behavior

and relationships are shaped by conscious and unconscious influences, while Cognitive behavior is a kind of similar to psychodynamic based human behavior example of such behavior or personality state for example depression, anxiety disorders, phobias and like.

k) At page 13, claim 9, applicant argues that neither references teaches using the specifically claimed formula for calculating the combination and order of modalities.

As to the above argument [k], as best understood by the examiner, Breese teaches Bayesian inference algorithm specifically based on user's emotion and personality [see Breese: Abstract, col 12, line 29-35], while Mizokawa suggests "pseudo-emotions" for example cheerfulness, joy and like [col 9, line 5-6], further Mizokawa also suggests preliminary emotion threshold is correlated with pseudo-personality information [col 9, line 42-53], and Mizokawa also teaches calculating the threshold of each preliminary emotion are compared with various levels for example higher than the preliminary emotion thresholds or lower than the preliminary emotions , although it is noted that both Breese, Mizokawa do not show "modalities calculation by an equation".

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to combine the Breese, and Mizokawa's references to derive modalities calculation by an equation because Breese directed to stochastic models [algorithms] of various levels of emotions/personalities that represents

"human behavior", while Mizokawa teaches calculating, comparing pseudo-emotions in the "pseudo-personality" thus, establishing relationship between emotins, environmental information to evaluate the behavioral output as suggested by Mizokawa [col 9, line 16-21].

l) At page 14, claim 12, applicant argues that for the reasons identical to those given in the defense of claim 1, Breese in view of Mizokawa, fails to teach, disclose, or suggest at least "calculating the individual's preferred modalities", rendering the claim non0bvious in view of Breese and Mizokawa.

As to the above argument [l], examiner applies claim 1 arguments as discussed above.

m) At page 14, claim 13-18, applicant respectfully submits that since claims 13-18 depend on independent claim 12, claims 13-18 contain all limitations of independent claim 12. Since independent claim 12 should be allowed, as argued above, pending dependent claims 13-18 should be allowed.....

As to the above argument [m], examiner applies independent claim arguments as discussed above.

Therefore, applicant's remarks are deemed not to be persuasive, and claims 1-8,10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breese et al. US Patent No. 5,987,415 filed in view of Mizokawa, US Patent No. 6, 230,111

Conclusion

The prior art made of record

a. US Patent No. 5987415

b. US Patent No. 6230111

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is 571-272-4108. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam, Hosain, T, can be reached on (571) 272-3978. The fax phone numbers for the organization where the application or proceeding is assigned is 571-273-8300 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

sc
Patent Examiner.
March 17, 2006.

SRIRAMA CHANNAVAJJALA
PRIMARY EXAMINER

Alam, Hosain, T
SPE, AU2166.